

Bangor, Maine, to 9th; great suffering in farming districts; streams drying up; stock driven long distances for water; many mills stopped. Charlotte, Vt., severe to the 13th. Windsor, Vt., severe at beginning of month up to 9th. Woodstock, Vt., 28th, drought of July and August still prevails; many wells and streams dry; farmers compelled in early part of month to haul water for stock. Westborough, Mass., month warm and dry. Auburn, N. H., drought severe in early part of month. Fort Madison, Iowa, 30th, water scarce, some wells dry. Sandy Springs, Md., 30th, slight drought.

*Rain-fall During August, Received Too Late to be Used in August Review.*—*Arizona*: Ft. Apache, 1.44 Signal Service and 2.02 Medical department, U. S. A.; Fort Bowie, 0.97; Fort Lowell, 3.64; Fort McDowell, 0.84; Fort Mojave, 1.80; Camp Thomas, 2.49; Whipple Barracks, 3.76. *California*: Angel Island, Alcatraz, Venicia Barracks, Fort Gaston, Fort San Jose, Presidio, S. F., Oakland and Ventura, none; Poway, 0.16; Oakwood Ranch, 0.26; Fort Bidwell, 0.42. *Colorado*: Fort Collins, 0.37; Fort Garland, 1.52; Fort Lyon, 4.92. *Dakota*: Fort Hale, 5.46; Fort A. Lincoln, 5.63; Fort Mead, 3.91, Fort Randall, 3.80; Fort Sisseton, 3.88; Fort Stevenson, 4.63; Fort Sully, 5.26. Fort Totten, 5.80; Ollivet, 5.62. *Florida*: St. Augustine, 8.20; of this 6.20 fell 28th to 31st. *Idaho*: Fort Hall, 1.50; Fort Lapwai, 0.80; Lewiston, 1.09. *Michigan*: Fort Brady, 3.63. *Montana*: Fort Assineboine, 2.56 Signal Service, and 2.36 Medical department, U. S. A.; Fort Ellis, 0.34; Fort Logan, 0.82. *Nebraska*: Fort Niobrara, 1.82. *Nevada*: Fort McDermitt, 0.30. *New Mexico*: Fort Union, 6.56; Fort Wingate, 1.49. *Oregon*: Fort Klamath, 0.08; Fort Stevens, 0.60. *Texas*: Fort Davis, 5.66 (S. S.); 3.88 (M. D.); *Utah*: Fort Douglas, 0.74. *Washington Territory*: Bainbridge Island, 1.30; Fort Canby, 0.78; Fort Townsend, 0.54; Neah bay, 1.06. *Wyoming Territory*: Fort Fetterman, 2.09; Fort Washakie, 0.76.

## RELATIVE HUMIDITY.

The percentage of mean relative humidity for the month ranges as follows: New England, from 71 to 81; Middle Atlantic States, 66 to 87; South Atlantic States, 69 to 88; Eastern Gulf States, 71 to 80; Western Gulf States, 70 to 81; Ohio valley and Tennessee, 62 to 77; Lower Lake region, 65 to 73; Upper Lake region, 65 to 75; Upper Mississippi valley, 62 to 71; Missouri valley, 60 to 67; Red River of the North valley, 70 to 76; Texas, 67 to 81; Middle Plateau, 19 to 39; California, 37 to 79; Oregon, 64 to 78. *High stations* report the following percentages not corrected for altitude: Mt. Washington, 86.6; Denver, 43.9; Virginia City, 31.0; Cheyenne, 38.6.

## WINDS.

*The prevailing directions of the wind during September, 1880, are shown by arrows, flying with the wind, on Chart No. II.* The prevailing direction in New England, the Lake region, the Ohio and Upper Mississippi valleys was *southeasterly*; in Florida, Tennessee, the South Atlantic and Eastern Gulf States, *northeasterly*; in the Western Gulf States, including all of Texas, *southeasterly*; the Upper Missouri and Red River valley of the North, *northwesterly*; the Lower Missouri valley and the Eastern Rocky Mountain Slope, *southerly*. On the Pacific coast it was *northwesterly*, except *south* at Sacramento and *southwest* at Los Angeles. In the Middle Atlantic States the winds were mostly from *northwest* to *southwest*. In the Plateau Districts they were *variable*. On Mt. Washington the prevailing direction was NW. and maximum velocity was S. 76 miles per hour on the 28th. Other maximum velocities of 50 miles or more occurred as follows: 10th, NE. 60; 15th, NE. 70; 21st, NW. 70; 22nd, NW. 60; 27th, NW. 57. The prevailing direction on Pike's Peak was SW.; the total monthly movement was 9,824 miles and maximum velocity 50 miles W., 4th. A maximum velocity of 50 miles NE. was reported from Cape Henry on the 9th.

*Total Movements of the Air*:—The following are the *largest* total movements in the various districts: Mt. Washington, (summit of,) frost work prevented complete record; Cape Lookout, 10,142; Thatcher's Island, 9,749; Pikes Peak, 9,824; Cape May, 9,704; North Platte, 9,585; Sandusky, 9,316; Bismarek, 8,238; Indianola, 8,190; Milwaukee, 8,012; San Francisco, 7,577; St. Louis, 6,575; Winnemucca, 5,853. The *smallest* are La Mesilla, 615; Silver City, 1,707; Lynchburg, 1,862; Uvalde, 1,896; Augusta, 1,948; Roseburg, 2,159; Visalia, 2,266; Shreveport, 2,651; Yuma, 2,904; Boise City, 2,925; Nashville, 2,930.

*Local Storm*.—On Friday, the 3rd, a tornado passed through the south part of Riley, Ill. It came from the southwest and moved to the northeast in a path about 200 feet wide. An observer says: It turned a tree, two feet in diameter, up by the roots, and twisted off two others, of two feet diameter, about twelve feet from the ground and carried the sundered parts eight or ten rods, and scattered them in pieces over a large surface. It broke off a sound hard maple of thirty years growth, over a foot in diameter, ten feet from the ground, and took off several feet of the tops of stacks of oats and scattered the bundles. It all occurred within five minutes and in the meantime water came down in torrents with a whirling motion. There was considerable damage done in Harmony and elsewhere south of Riley by the same storm, but no houses blown away.

*Waterspouts*.—Key West, Fla., 16th, 3 p. m., about six miles distant. Buffalo, 29th, 4 waterspouts reported to have been seen on Lake Erie, 4 miles from this city, moving from SW. to NE. They were said to be cylindrical rather than conical.

*Sand Storms*.—Umatilla, Or., 22nd; Burkes, A. T., 9th and 12th.